

Patent Claims

1. Rotor for an electric motor, particularly an electric
5 line-start motor, with axially extending accommodat-
ing spaces (4 to 6; 27, 28) for conductor rods and
with axially extending receiving spaces (10, 11; 30
to 32) for permanent magnets (14, 15), designed and
located so that they generate a permanent magnet
10 field with a magnet axis (22) and a neutral axis (23),
characterised in that the diameter of the rotor is
larger along the magnet axis (22) than along the neu-
tral axis (23).
- 15 2. Rotor according to claim 1, characterised in that the
diameter of the rotor along the magnet axis (22) is
maximum 2 mm larger than along the neutral axis (23).
3. Rotor according to claim 2, characterised in that the
20 diameter of the rotor along the magnet axis (22) is
0.5 to 1 mm larger than along the neutral axis (23).
4. Rotor according to one of the preceding claims, char-
acterised in that in the cross-section the rotor has
25 the shape of an ellipse, whose main axis covers the
magnet axis (22) and whose auxiliary axis covers the
neutral axis (23).
5. Rotor according to one of the preceding claims, char-
30 acterised in that the receiving spaces (10, 11) for
the permanent magnets (14, 15) are made to be curved
and located around the rotational axis of the rotor
in such a manner that, in a cross-sectional view

through the rotor, the distance between the receiving spaces for the permanent magnets and the accommodating spaces for the conductor rods are larger in the area of the magnet axis (22) than in the area of the neutral axis.

6. Rotor according to one of the preceding claims, characterised in that, in a cross-sectional view through the rotor, the receiving spaces (10, 11) for the permanent magnets (14, 15) have the shape of bows, which are located in the shape of an ellipse, whose main axis covers the neutral axis (23) and whose auxiliary axis covers the main axis (22).
7. Rotor according to one of the claims 1 to 3, characterised in that the permanent magnets (30, 31, 32) are rod-shaped, substantially forming two half circles around a through-hole (34) in the rotor.
8. Electric motor, particularly an electric line-start motor, with a stator comprising a plurality of windings and a rotor accommodating space (1) with a particularly circular cross-section, characterised in that a rotor (2) according to one of the preceding claims is accommodated to be rotatable in the rotor accommodating space (1).